

POOR LEGIBILITY

**ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ
DUE TO THE QUALITY OF THE ORIGINAL**

DOHS: _____
RWQCB: _____
OTHER: Nevada Div. of Env. Prot.
DATE: 6/5/87

SFUND RECORDS CTR
2386461



DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL PROTECTION/CONSTRUCTION GRANTS

Capitol Complex
Carson City, Nevada 89710
(702) 885-5870

October 24, 1986

Mr. Ashley Hall
City Manager
City of Las Vegas
400 East Stewart Street
Las Vegas, Nevada 89101

Dear Mr. Hall:

Enclosed is a copy of the "Hydrogeologic Investigation Plan for Las Vegas, Nevada" submitted to the Division by Union Pacific Railroad Company as required by Item 3 of the Administrative Order dated 9/19/86.

I will be preparing a written response during the week of the 27th detailing additional items which need to be addressed by this plan. The plan presents a phased investigation which I believe is a reasonable approach for this situation. The first phase, as outlined in this plan, is to establish whether or not a contamination problem exists on-site. If the monitoring wells drilled during this investigation demonstrate there has been migration of diesel fuel to the ground water, then the second phase of the study would be warranted. This second phase plan, if needed, would include additional wells both on and off-site to delineate all contamination, testing of all tanks and lines for leaks and the design and implementation of a hydrocarbon recovery system.

If you or your staff have any comments or recommendations regarding the enclosed plan, please feel free to contact me at 885-4670.

Sincerely,

Doug Zimmerman
Environmental Management Specialist

DZ:kh
Enclosure
cc: L.H. Dodgion

UNION PACIFIC RAILROAD COMPANY
ENGINEERING DEPARTMENT



DOCUMENT SOURCE STAMP

DOHS: _____

RWQCB: _____

OTHER: _____

DATE: _____

C. D. BARTON

CHIEF ENGINEER

C. L. JENSEN

GENERAL TRACK ENGINEER

P. M. ABARAY

GENERAL SIGNAL ENGINEER

G. W. McDONALD

GENERAL CONSTRUCTION ENGINEER

J. R. BERAN

GENERAL STRUCTURES ENGINEER

S. J. McLAUGHLIN
ASSISTANT VICE PRESIDENT-
ENGINEERING

C. G. YUND
CHIEF ENGINEER-PLANNING

J. W. HEAVIN
GENERAL PLANNING & PRODUCTION
ENGINEER

G. F. HITE
GENERAL BUDGETS & ADMINISTRATION
ENGINEER

D. L. BANGHART
SENIOR DIRECTOR-PROJECT MANAGEMENT
SYSTEM

ROOM 1000
1416 DODGE STREET
OMAHA, NEBRASKA 68179
(402) 271-5000

October 16, 1986

Environmental Protection: NE

Mr. Doug Zimmerman
Ground Water Protection Specialist
Department of Conservation &
Natural Resources
201 Southfall Street
Carson City, Nevada 89710

RECEIVED

OCT 20 1986

ENVIRONMENTAL
PROTECTION

Dear Mr. Zimmerman:

RE: Las Vegas Yard Ground Water Investigation

As ordered by your letter dated September 19, 1986, we are submitting Item 3, "Hydrogeologic Investigation Plan," for your approval.

Attached is our Hydrogeologic Plan. Contact Mr. Gary Papek at (402) 271-4972 on any questions you may have on our plan.

Yours truly,

S. J. McLaughlin
S. J. McLAUGHLIN

DOCUMENT SOURCE STAMP

DOHS: _____

RWQCB: _____

OTHER: *Nevada Div. of Env. Prot.*
DATE: *6/5/87*

UNION PACIFIC RAILROAD COMPANY
HYDROGEOLOGIC INVESTIGATION
FOR
LAS VEGAS, NEVADA

OCTOBER 16, 1986

This plan has been developed in response to the Department of Conservation and Natural Resources' order to investigate the extent of diesel oil contamination at the UPRR rail yard at Las Vegas. The objectives of the plan are as follows:

- ° Identify probable sources of diesel oil contamination at the site.
- ° Estimate the extent of diesel oil contamination at the site.
- ° Evaluate the facility's hydrogeology to the extent necessary to determine if migration of the oil contamination has occurred.
- ° Recommend monitoring well design and locations.
- ° Recommend sampling procedures.
- ° Recommend a course of action based on the results of the yard investigation.

The following tasks have been developed to specifically meet these objectives.

TASK 1: COLLECTION AND REVIEW OF AVAILABLE FACILITY DATA

Existing site data, such as well and foundation boring logs, plans and drawing of diesel storage/distribution systems, and historical site operations, will be collected and reviewed. This information will be used to develop an understanding of subsurface site conditions to keep the number of monitoring wells needed to accomplish the objectives of the investigation to a minimum.

In addition, available pertinent data regarding the facility and the area adjacent to the facility will be obtained from federal, state and local agencies. This information will be used to identify hydrologic conditions in the vicinity of the facility that might effect migration of the diesel oil.

DOHS:

RWQCB:

OTHER: Nevada Div. of Env. Prot.
DATE: 6/5/87TASK 2: SUBSURFACE INVESTIGATION

On the attached map we are suggesting four monitoring wells. Locations 1, 2 and 3 are favored because of their proximity to existing fueling activity. Location 4 was selected as a migration indicator. These locations are negotiable with final selection being made on site.

We are suggesting a monitoring well design similar to the attached Typical Well Construction drawing for intermediate and deep well construction. Drilling will be done utilizing local contractors.

Subsurface samples will be taken at five-foot intervals. If samples indicate contamination by sight or smell, samples will continue to be taken to groundwater. If samples do not indicate contamination after 20 feet, no more samples will be taken. Drilling will continue to groundwater. All samples will be tested for oil and grease content using the Soxhlet extraction procedure.

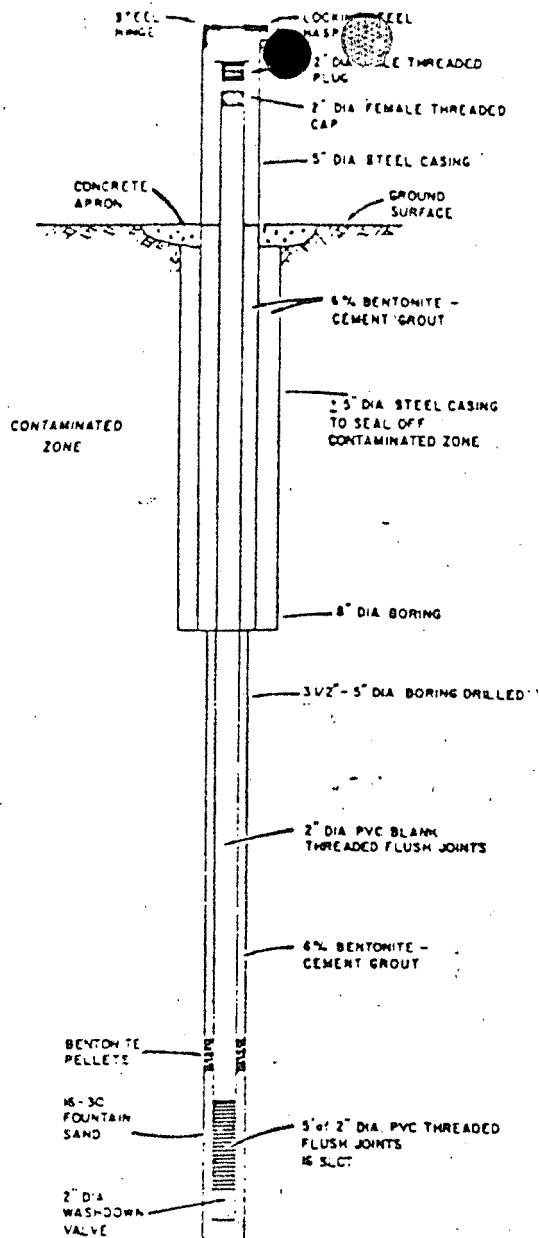
Water samples will be taken and analyzed for oil and grease.

TASK 3: SITE INVESTIGATION REPORT

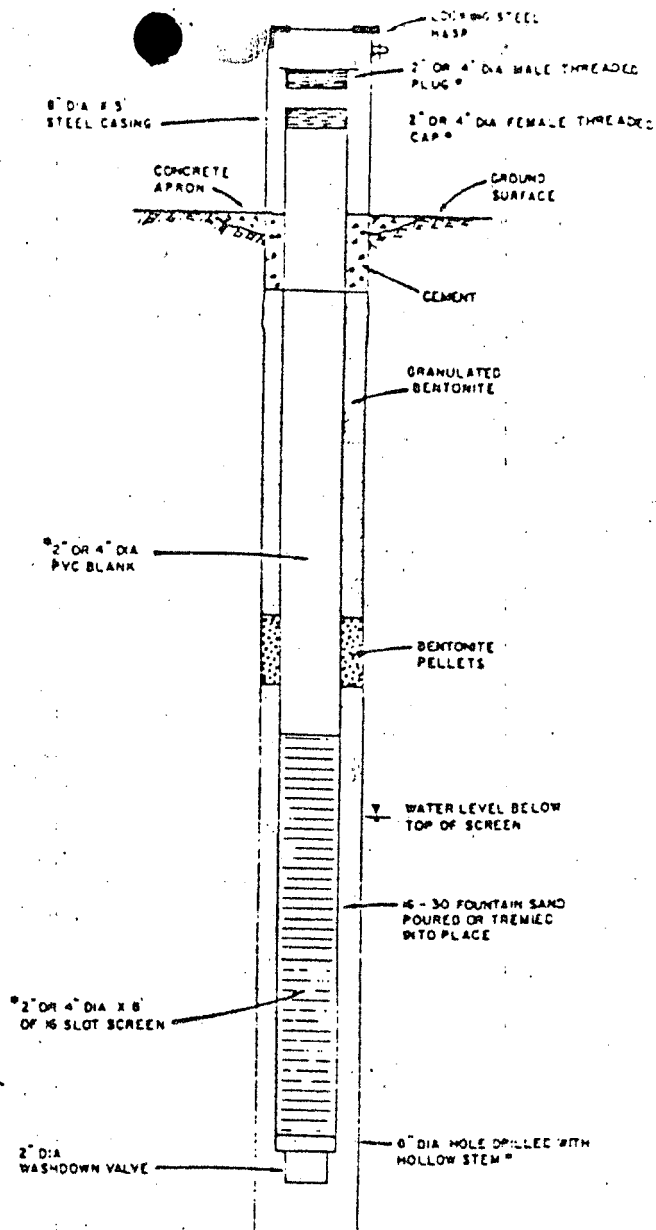
A report will be submitted to the Department of Conservation and Natural Resources 30 days after receipt of sample analysis. The report will review findings in Task 1 and report analytical results from Task 2. The report will give our recommendation for a course of action based on results from this Plan.

SCHEDULING

Union Pacific Railroad will complete Task 1 by December 5, 1986. Bidding and material procurement will proceed during December with anticipated well installation completed by January 15, 1987.



TYPICAL
DEEP AND INTERMEDIATE
WELL CONSTRUCTION



TYPICAL
SHALLOW WELL
CONSTRUCTION

DOCUMENT SOURCE STAMP
DOHS: _____
RWQCB: _____
OTHER: Nevada Div. of Env. Prot.
DATE: 6/5/87

TYPICAL WELL CONSTRUCTION

RECORD OF COMMUNICATION

☐ DISCUSSION ☒ FIELD TRIP ☐ CONFERENCE
☐ PHONE CALL ☐ OTHER (SPECIFY)

(Record of item checked above)

TO: *Union Pacific Fyle
LAS Vegas Yard*

FROM: *Doug Zimmerman*

DATE *10/15/86*
TIME *0900*

SUBJECT *PCB sampling - diesel fuel*

SUMMARY OF COMMUNICATION

I accompanied Tom and Allen on the sampling of PCB's. Talked with railroad personnel one of whom indicated that if wells were placed any where in the yard you could find diesel. He mentioned a pipe line break which "flooded" part of the yard. He said downtown hotels who pump ground water for their foundations also pump diesel.

DOCUMENT SOURCE STAMP

DOHS: _____
RWQCB: _____
OTHER: *Nevada Div. of ENV. Prot.*
DATE: *6/15/87*

Dean C. Cooper
Special Agent
Hazardous Material
Unit only
and Special Service



Union Pacific Railroad
Union Pacific Railroad
500 California Dr., P.O. Box 100
Los Angeles, CA 90022
(213) 725 2271
(213) 725 2222
(800) 372 6530

SLIDE A

ED

ROUTE TO: 1 _____ 2 _____ 3 _____

File *Union Pacific - L-V
JACK*